

FIG. 1

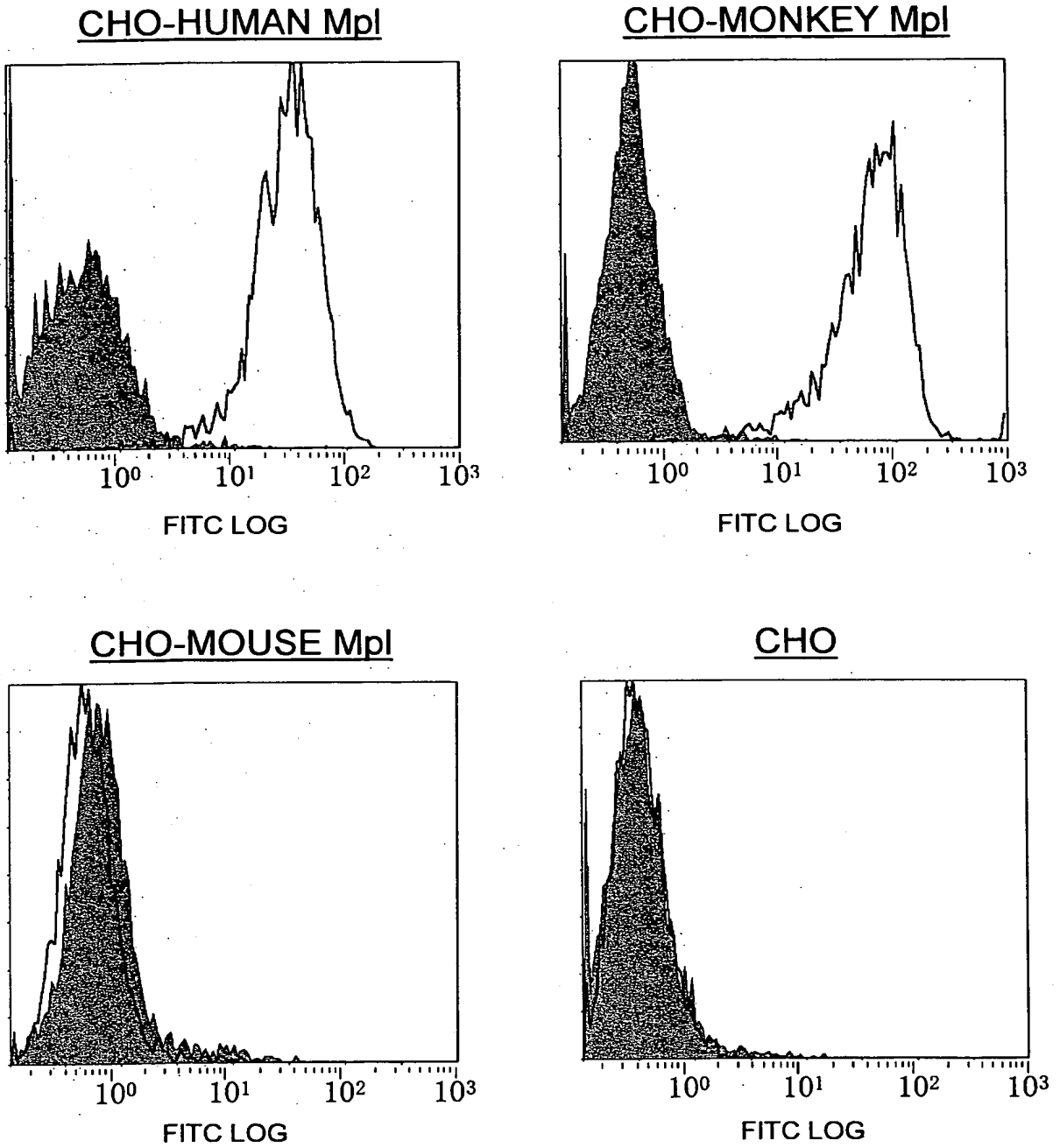


FIG. 2

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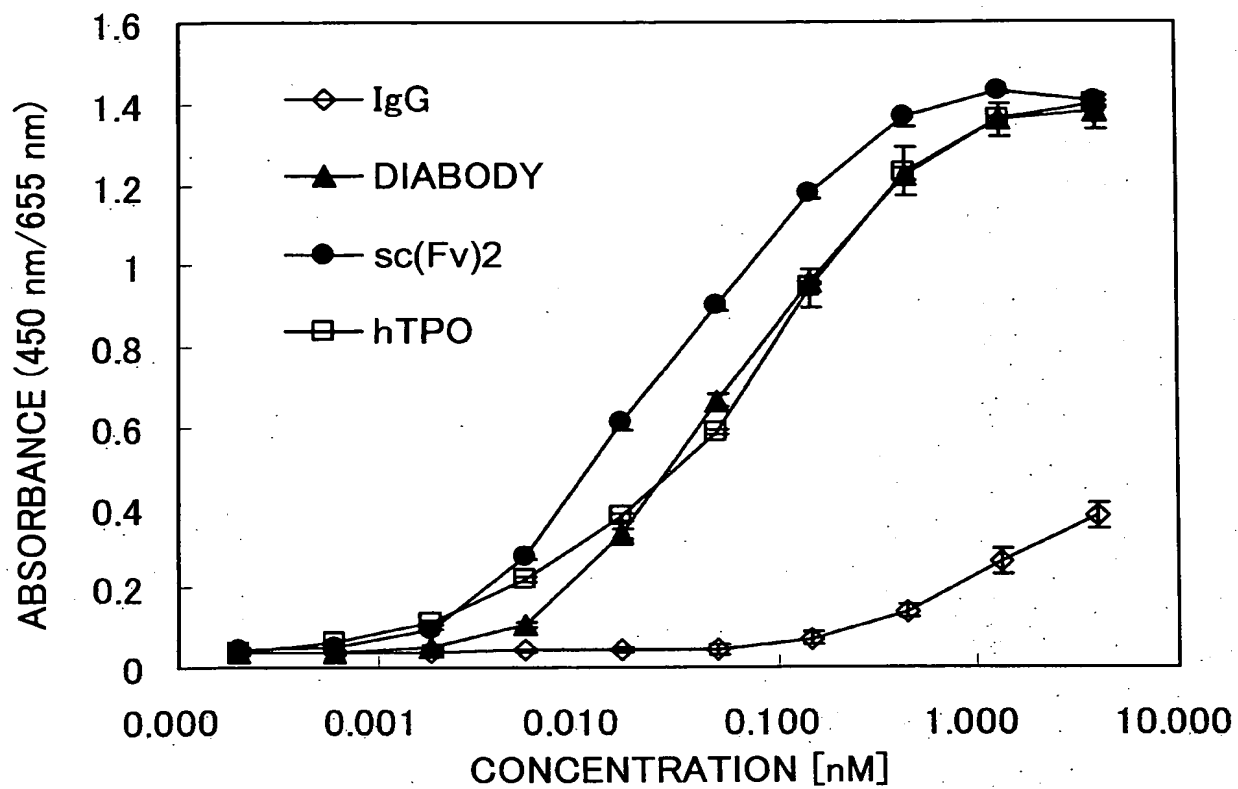


FIG. 3

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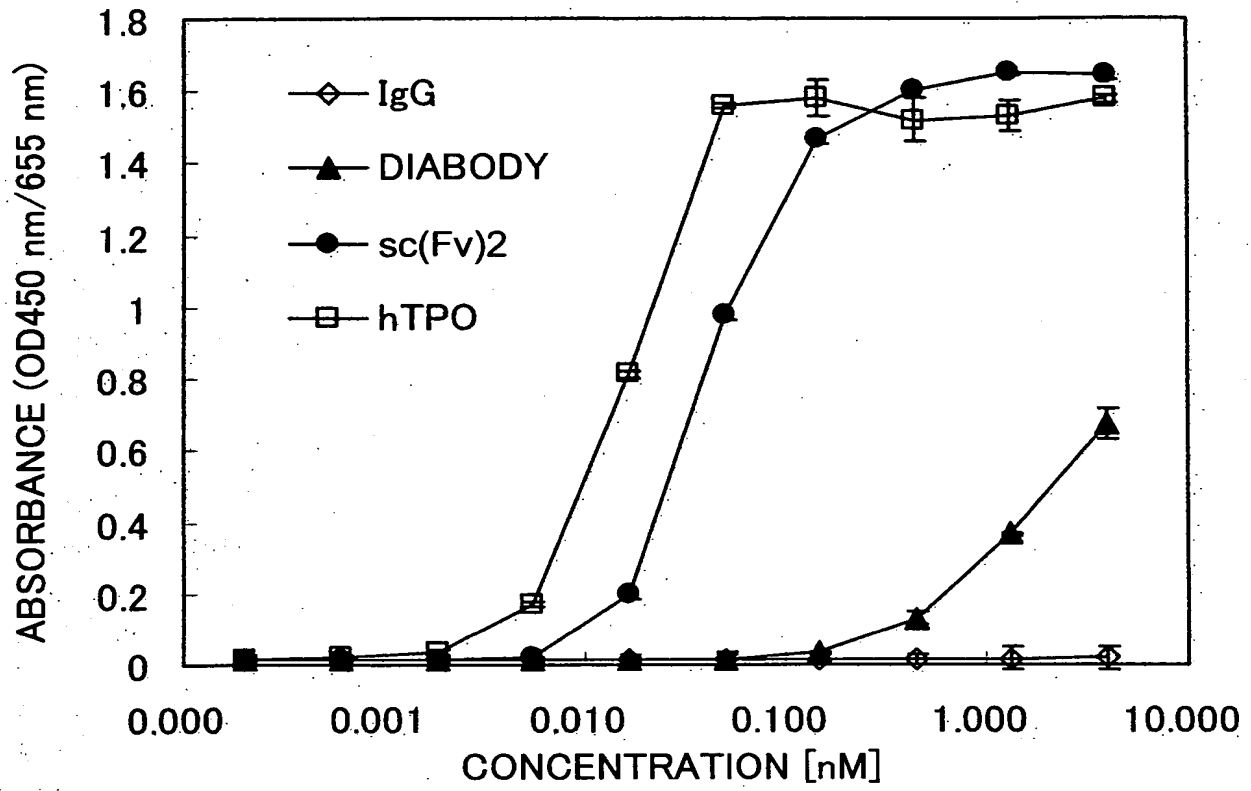


FIG. 4

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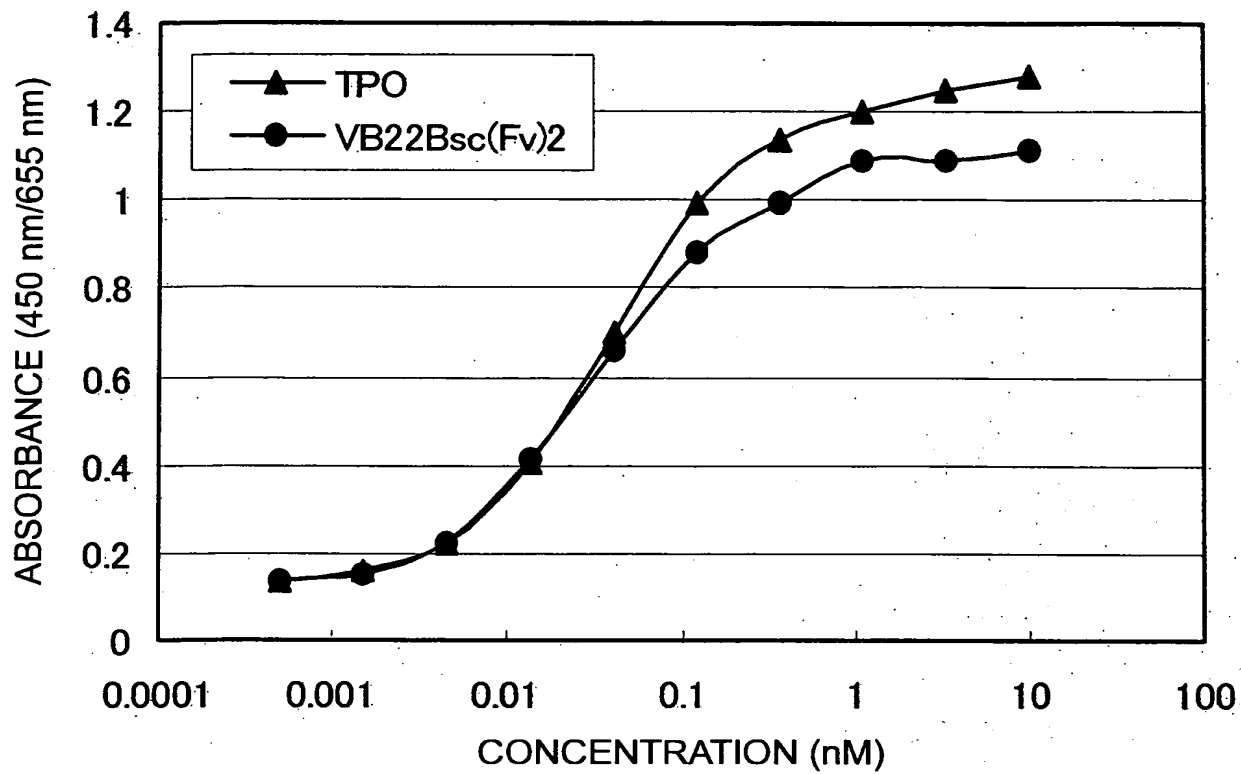


FIG. 5

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	CDR1		CDR2	
VA7	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN WVKQRPKGKLEWIG	RTYPGDGDNTYNGKFKG	
VA130	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN WVKQRPKGKLEWIG	RIYPGDGDNTYNGKFKG	
VA259	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN WVKQRPKGKLEWIG	RIYPGDGETNYNGKFKG	
VB17B	QVQLQQSGPELVKPGASVKISCKASGYTFS	SSWMN WVKQRPKGKLEWIG	RIYPGDGDNTYNGKFKG	
VB12B	QVQLQQSGPELVKPGASVKISCKASGYAFS	RSWMN WVKQRPKGKLEWIG	RIYPGDGDNTYNGKFKG	
VB140	QVQLQQSGPELVKPGASVKISCRAFGYAFS	NSWMN WVKQRPKGKLEWIG	RIYPGDGETNNGKFKG	
VB33	QVQLQQSGPELVKPGASVKLSCKASGYTFT	NYWVN WVKQRPGRGLEWIG	RIHPSDSETHCNGKFKR	
VB45B	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN WVKQRPKGKLEWIG	RIYPGDGETNNGKFKG	
VB8B	QVQLQQSGPELVKPGASVKISCKASGYAFS	TSWMN WVKQRPKGKLEWIG	RIYPGDGEANYNGKFKG	
VB115	QVQLQQSGPELVKPGASVKISCKASGYAFS	SSWMN WVKQRPKGKLEWIG	RIYPGDGETNYNGKFKG	
VB14B	QVQLQQSGPELVKPGASVKISCKASGYAFS	RSWMN WVKQRPKGKLEWIG	RIYPGDGETNYNGKFKG	
VB22B	QVQLQQSGPELVKPGASVKISCKASGYAFT	NSWMN WVKQRPKGKLEWIG	RIYPGDGETIYNGKFRV	
VB16	QVQLQQSGPELVKPGASVKLSCKASGYTFT	DYWVN WVKQRPGRGLEWIG	RIHPYDSETHYNGKFKN	
VB157	QVQLQQSGPELVKPGASVKISCKASGYAFT	DYWVN WVKQRPGRGLEWIG	RIHPFDSETHCSQKFKN	
VB4B	QVQLQQSGPELVKPGASVKISCKASGYAFT	NSWMN WVKQRPKGKLEWIG	RIYPGDGETIYNGKFRV	
VB51	QVQLQQSGPELVKPGASVKISCKASGYAFS	NSWMN WVNQRPKGKLEWIG	RIYPGDGDTIYNGNFKG	
CDR3				
VA7	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR	GWILADGGYSFAY	WGQGLVTVSA	(SEQ ID NO: 124)
VA130	KATLTADKSSSTAYIQLSSLTSEDSAVYFCAR	GYAD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 126)
VA259	KATLTADKSSNTAYMQLSSLTSEDSAVYFCAR	GFGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 128)
VB17B	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAS	GYAD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 130)
VB12B	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAS	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 132)
VB140	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 134)
VB33	KATLTVNKSSSTAYIQLHSLTSEDSAVYYCTS	GGW-----FAY	WGQGLVTVSA	(SEQ ID NO: 136)
VB45B	KATLTADKSSSTAYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 138)
VB8B	KATLTADKSSSSAYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 140)
VB115	KATLTADKSSSTVYMQLSSLTSEDSAVYFCAR	GYGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 142)
VB14B	KATLTADKSSSTAYMQFSSLTSEDSAVYFCAR	GDGD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 144)
VB22B	KATLTADKSSSTAYMDISSLTSEDSAVYFCAR	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 146)
VB16	KATLTVDKSSSTAYIQLSSLTSEDSAVYYCAS	GGW-----FAS	WGQGLVTVSA	(SEQ ID NO: 148)
VB157	KATLTVDKSSNTAYIQFSSLTSEDSAVYYCSS	GGW-----FAY	WGQGLVTVSA	(SEQ ID NO: 150)
VB4B	KATLTADKSSSTAYMEISSLTSEDSAVYFCAR	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 152)
VB51	KATLTADKSSSIAYMQLSSLTSEDSAVYFCTS	GYDD----YSFAY	WGQGLVTVSA	(SEQ ID NO: 152)

FIG. 6

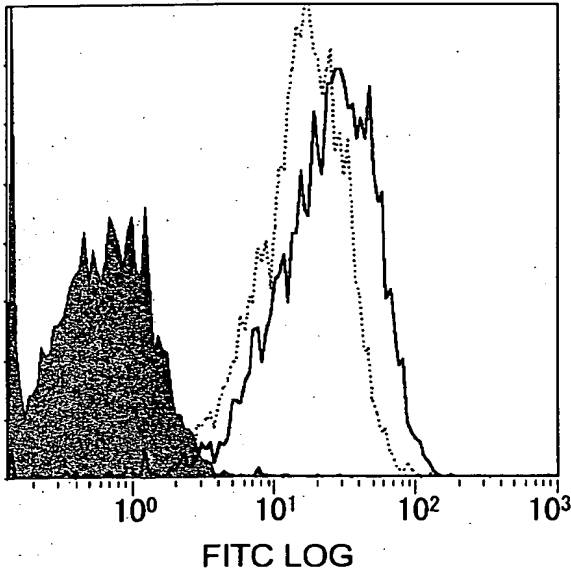
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		CDR1		CDR2
VA7	DIVMTQAAPSI PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VA130	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VA259	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB17B	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB12B	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB140	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB33	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB45B	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB8B	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB115	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB14B	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB22B	DIVMTQAAPSI PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB16	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB157	DIVMTQAAPSV SVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB4B	DIVMTQAAPSV PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
VB51	DIVMTQAAPSL PVT PGESVSISC	RSSKSLLSNGNTYLY	WFLQRPQGSPQLLIY	RMSNLAS
		CDR3		
VA7	GVPDRFSGSGS GTAFTLLRISRVEAEDVGIIYYC	MQHLEYPFT	FGTGTKLEIK	(SEQ ID NO: 125)
VA130	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 127)
VA259	GAPDRFSGSGS GTAFTLLRISRVEDEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 129)
VB17B	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 131)
VB12B	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 133)
VB140	GVPDRFSGSGS GAAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 135)
VB33	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 137)
VB45B	GVPDRFSGSGS GAAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 139)
VB8B	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHVEYPYT	FGSGTKLEIK	(SEQ ID NO: 141)
VB115	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 143)
VB14B	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 145)
VB22B	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHIEYPFT	FGSGTKLEIK	(SEQ ID NO: 120)
VB16	GVPDRFSGSGS GTAFTLLTIS SVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 147)
VB157	GVPDRFSGSGS GTAFTLLKISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 149)
VB4B	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHIEYPFT	FGSGTKLEIK	(SEQ ID NO: 151)
VB51	GVPDRFSGSGS GTAFTLLRISRVEAEDVGVIYYC	MQHLEYPYT	FGSGTKLEIK	(SEQ ID NO: 153)

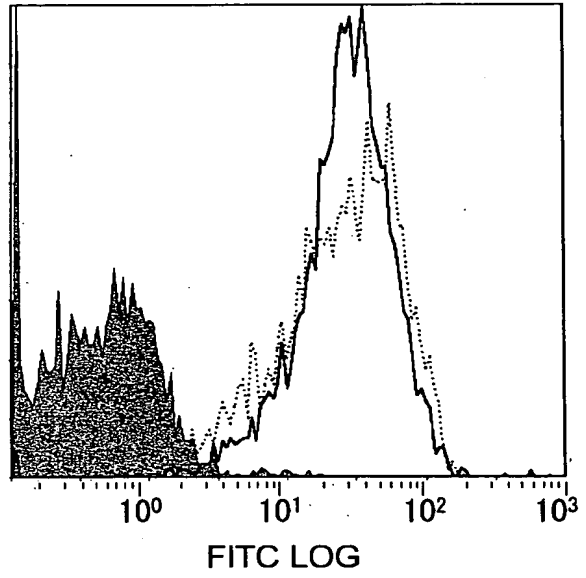
FIG. 7

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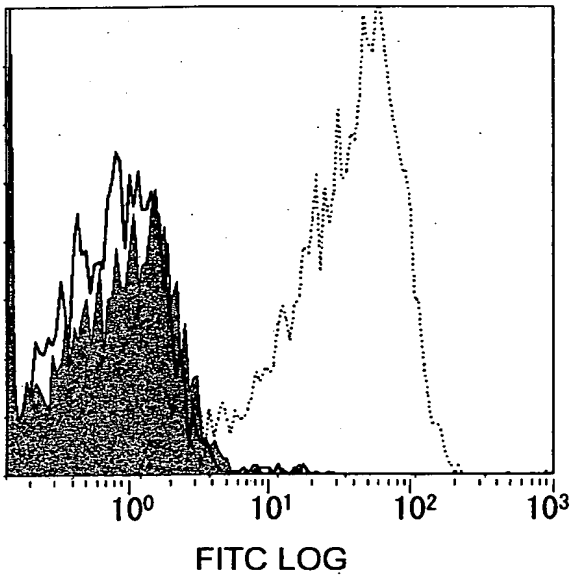
CHO-HUMAN Mpl



CHO-MONKEY Mpl



CHO-MOUSE Mpl



CHO

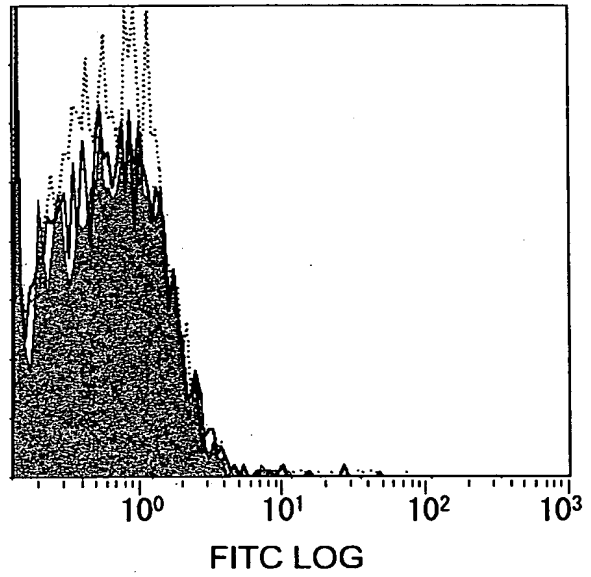


FIG. 8

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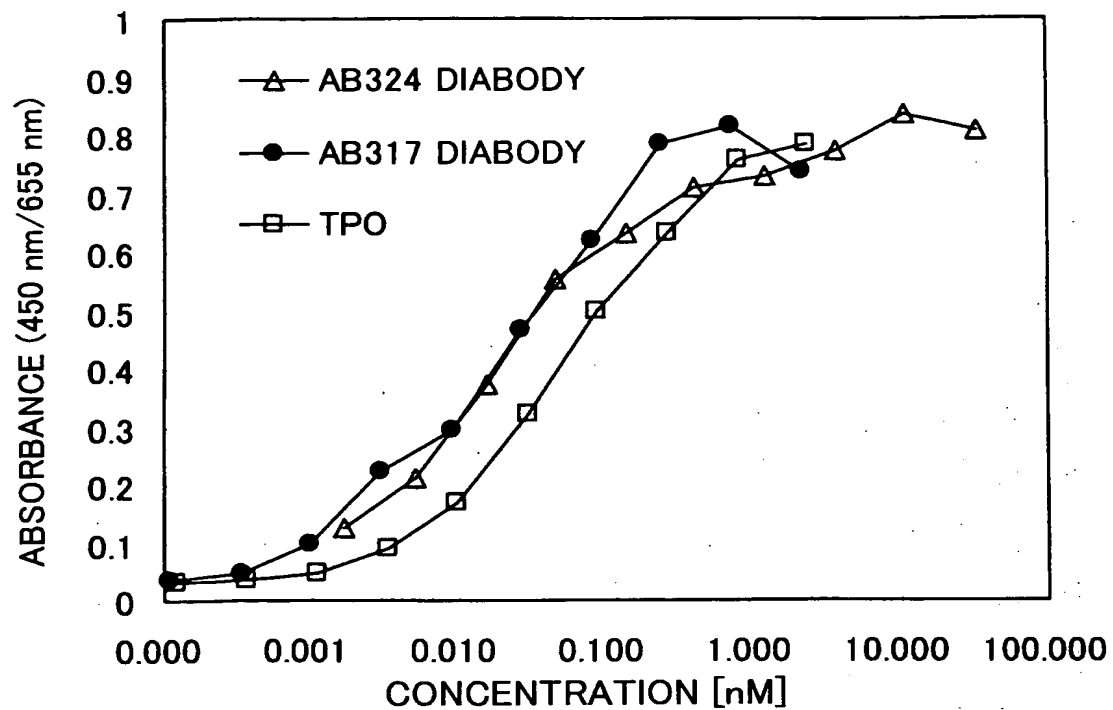


FIG. 9

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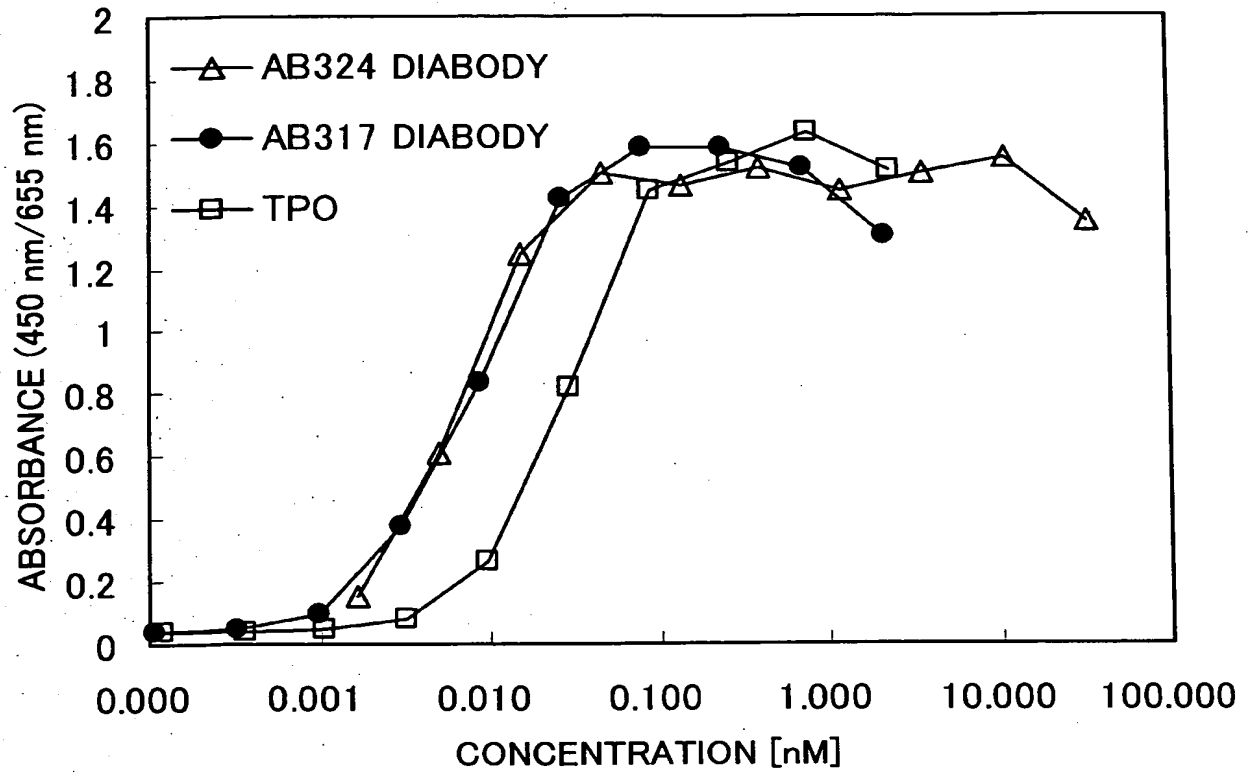


FIG. 10

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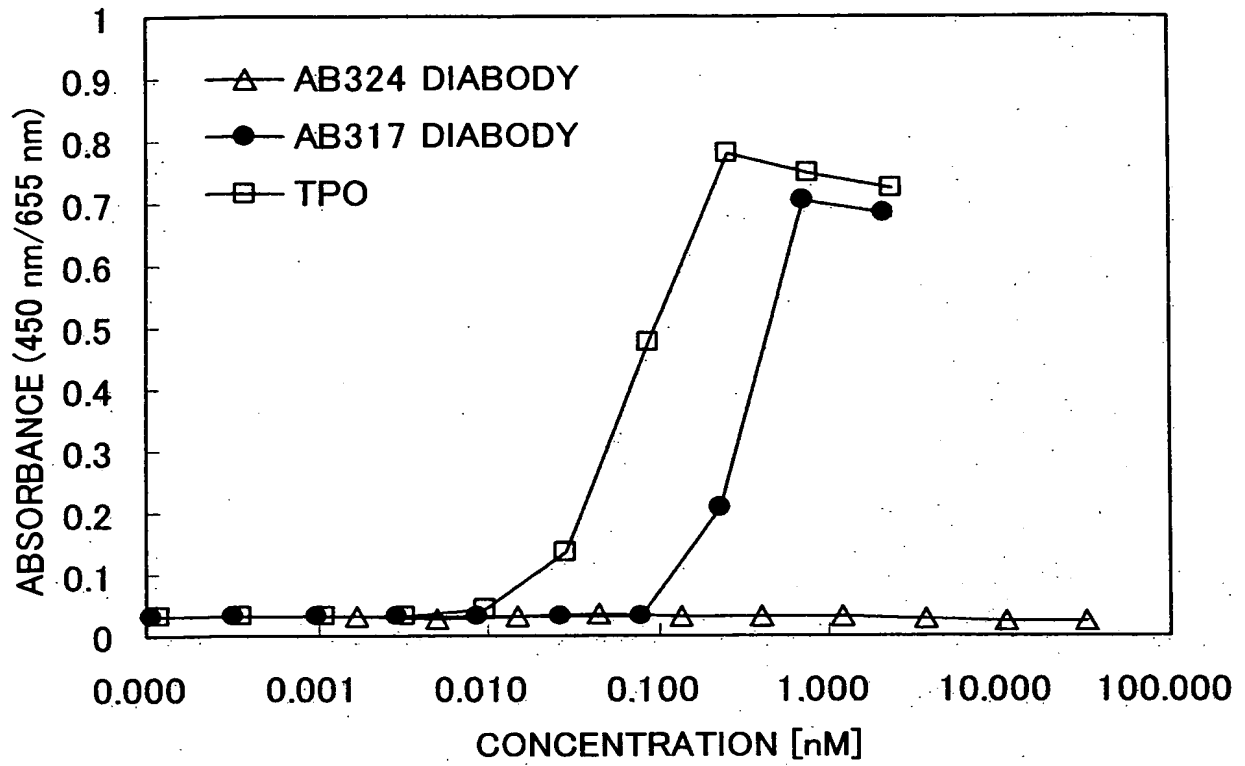


FIG. 11

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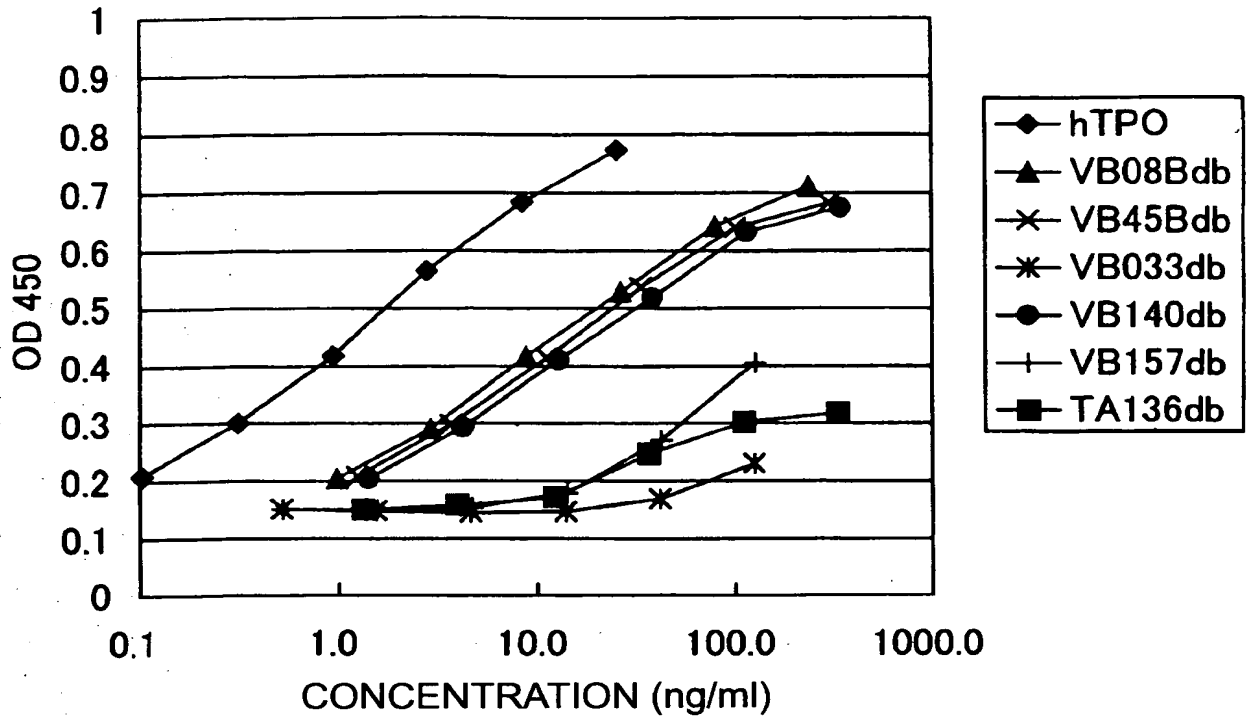


FIG. 12

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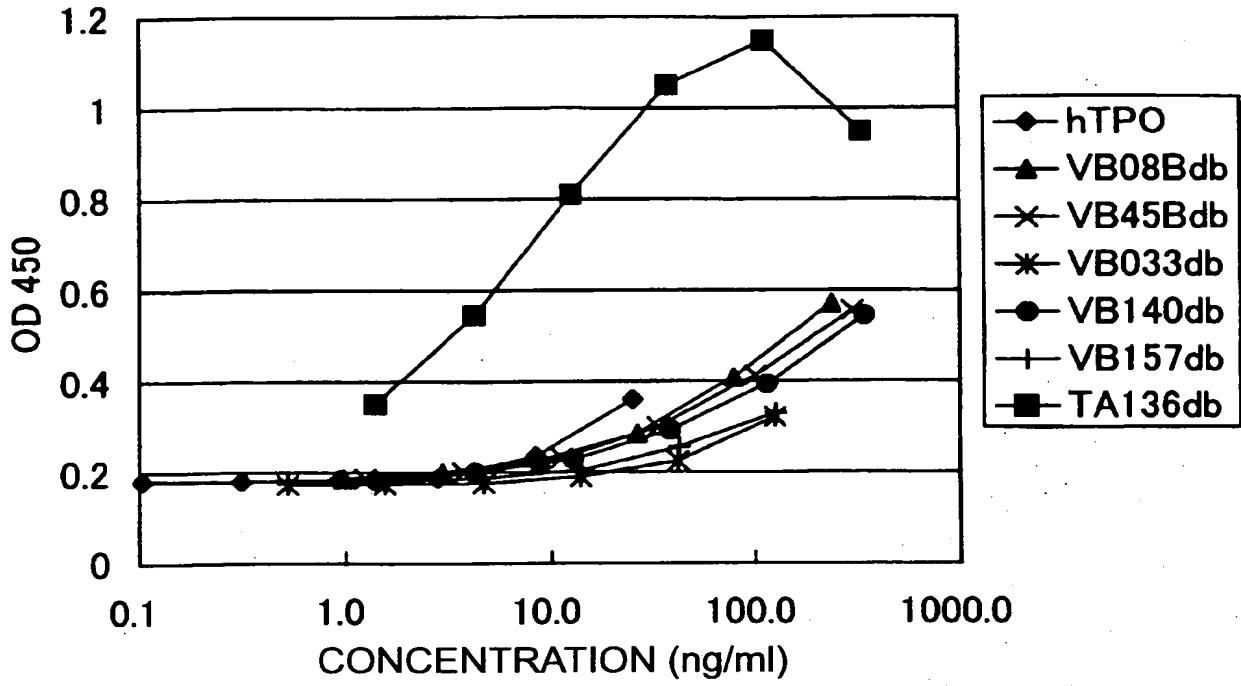


FIG. 13

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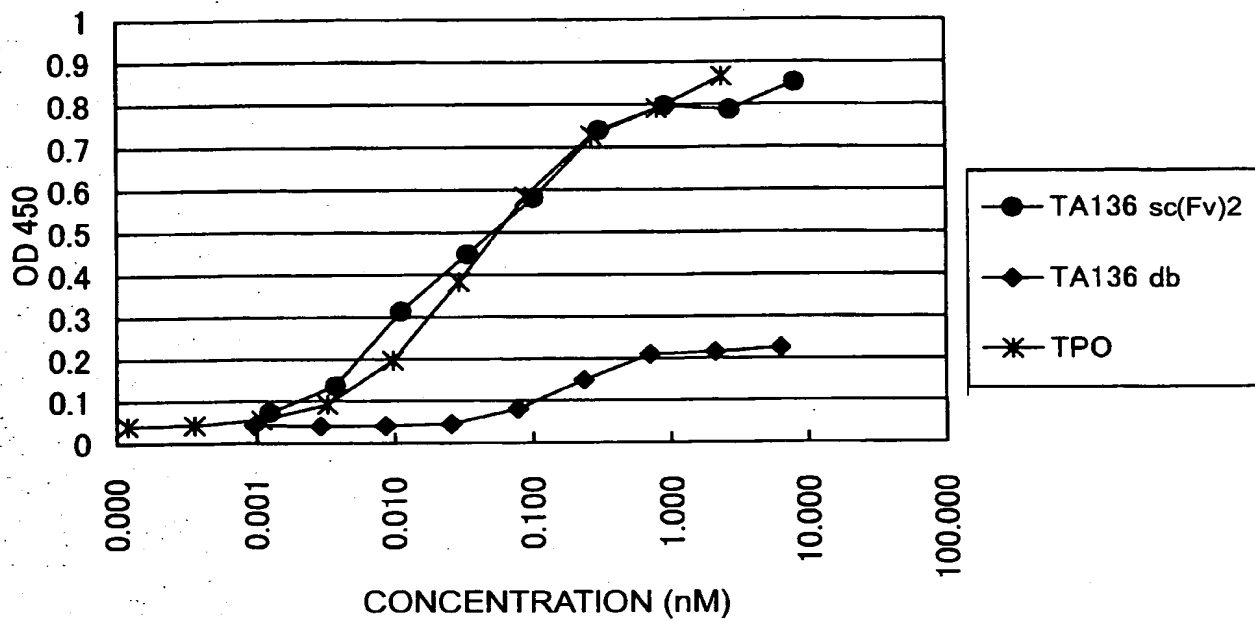


FIG. 14

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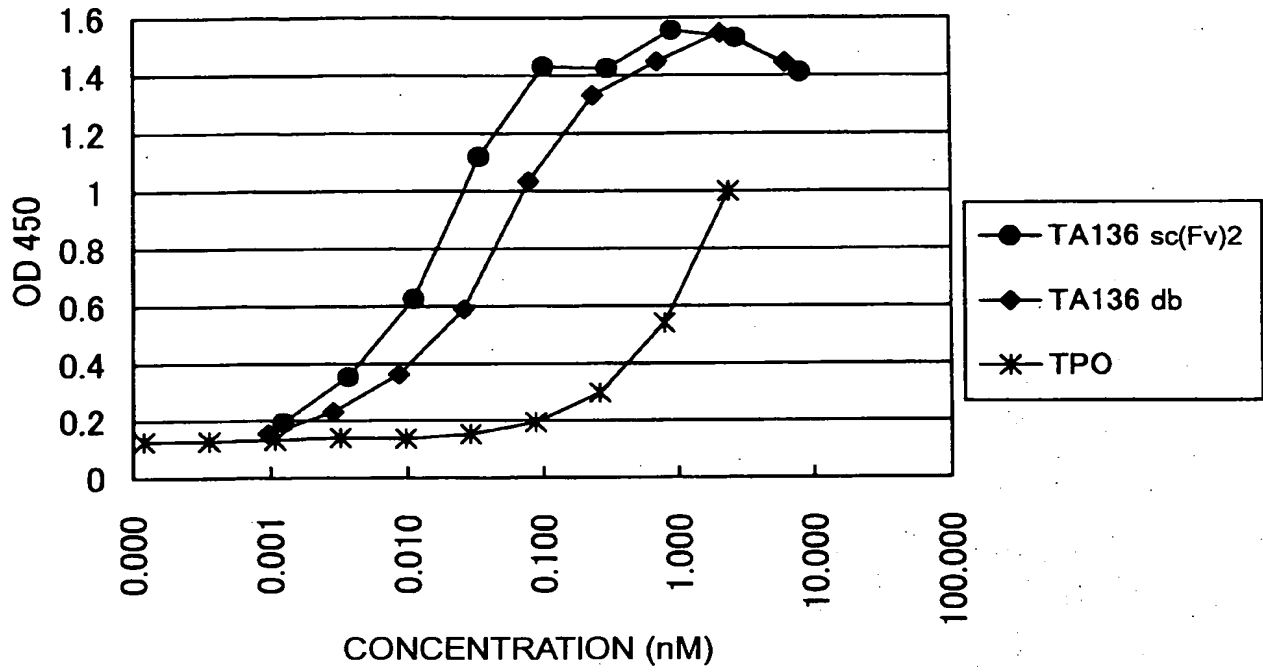


FIG. 15

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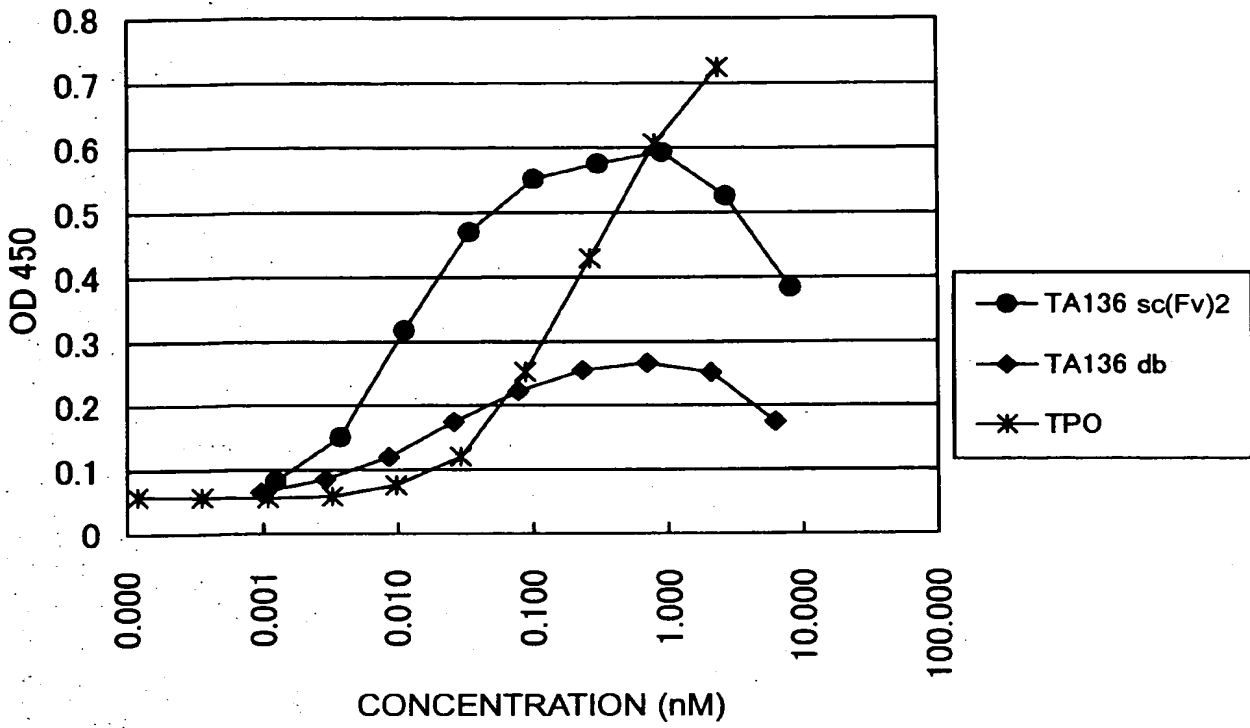


FIG. 16

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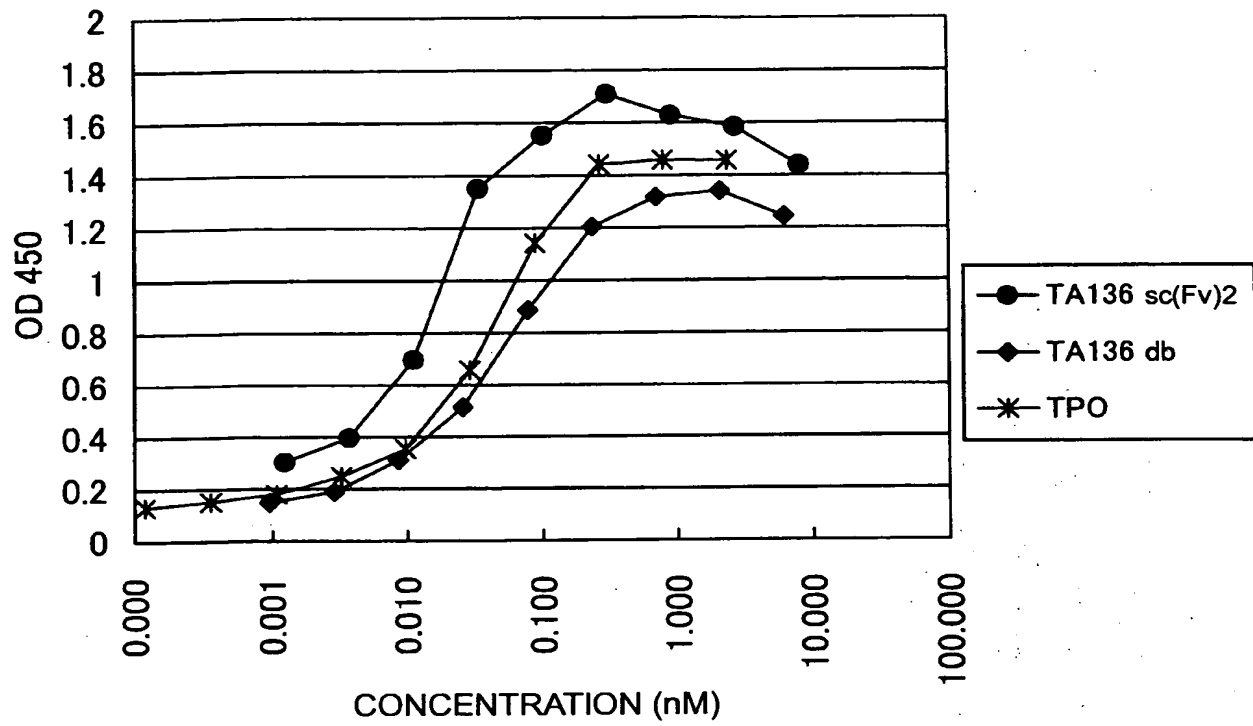


FIG. 17

HUMANIZED HEAVY CHAIN		FR1	CDR1	FR2	CDR2
hVB22B u2-wz4	QVQLVQSGPEVKKPGASVKVSKASGYTFT	NSWMN	WVRQRPKGLWIG	RIYPGDGETIYNGKFRV	
hVB22B q-wz5	QVQLVQSGPEVKKPGASVKVSKASGYTFT	NSWMN	WVRQRPKGLWIG	RIYPGDGETIYNGKFRV	
hVB22B p-z	QVQLVQSGPEVKKPGASVKVSKASGYTFT	NSWMN	WVRQRPKGLWMMG	RIYPGDGETIYNGKFRV	
hVB22B g-e	QVQLVQSGPEVKKPGASVKVSKASGYTFT	NSWMN	WVRQRPKGLWVVG	RIYPGDGETIYNGKFRV	
hVB22B e	QVQLVQSGPEVKKPGASVKVSKASGYTFT	NSWMN	WIRQRPKGLWIG	RIYPGDGETIYNGKFRV	
hVB22B u2-wz4	RVTITADESTSTAYMQLSSLRSEDVAVYYCAR	GYDDYSFAY	WGQGTTLTVSS	(SEQ ID NO: 289)	
hVB22B q-wz5	RVTITADESTSTAYMELSSLRSEDVAVYYCAR	GYDDYSFAY	WGQGTTLTVSS	(SEQ ID NO: 295)	
hVB22B p-z	RVTITADESTSTAYMELSSLRSEDVAVYYCAR	GYDDYSFAY	WGQGTTLTVSS	(SEQ ID NO: 229)	
hVB22B g-e	RVTITADESTSTAYMELSSLRSEDVAVYYCAR	GYDDYSFAY	WGQGTTLTVSS	(SEQ ID NO: 256)	
hVB22B e	RVTITADESTSTAYMELSSLRSEDVAVYYCAR	GYDDYSFAY	WGQGTTLTVSS	(SEQ ID NO: 262)	
		FR3	CDR3	FR4	

FIG. 18-1

HUMANIZED LIGHT CHAIN		FR1	CDR1	FR2	CDR2
hVB22B u2-wz4	DIVMTQSP ^L SLPVT ^P GP ^E PAS ^I SC	RSSKSL ^L LHSNGNT ^Y LY	WFLQKPGQSPQ ^L LIY	RMSN ^L LA ^S	
hVB22B q-wz5	DIVMTQSP ^L SLPVT ^P GP ^E PAS ^I SC	RSSKSL ^L LHSNGNT ^Y LY	WFQKPGQAPR ^L LIY	RMSN ^L LA ^S	
hVB22B p-z	DIVMTQSAL ^S LPVT ^P GP ^E PAS ^I SC	RSSKSL ^L LHSNGNT ^Y LY	WFQKPGQSPQ ^L LIY	RMSN ^L LA ^S	
hVB22B g-e	DIVMTQSAL ^S LPVT ^P GP ^E PAS ^I SC	RSSKSL ^L LHSNGNT ^Y LY	WYLQKPGQSPQ ^L LIY	RMSN ^L LA ^S	
hVB22B e	DIVMTQSAL ^S LPVT ^P GP ^E PAS ^I SC	RSSKSL ^L LHSNGNT ^Y LY	WYLQKPGQSPQ ^L LIY	RMSN ^L LA ^S	
hVB22B u2-wz4	GVPDRFSGSGGT ^F TLKISR ^V EAE ^D VG ^V Y ^C	MQHIEY ^P P ^F T	FGQGTKLEIK	(SEQ ID NO: 291)	
hVB22B q-wz5	GVPDRFSGSGGT ^F TLKISR ^V EAE ^D VG ^V Y ^C	MQHIEY ^P P ^F T	FGQGTKLEIK	(SEQ ID NO: 297)	
hVB22B p-z	GVPDRFSGSGGT ^F TLKISR ^V EAE ^D VG ^V Y ^C	MQHIEY ^P P ^F T	FGQGTKLEIK	(SEQ ID NO: 238)	
hVB22B g-e	GVPDRFSGSGGT ^F TLKISR ^V EAE ^D VG ^V Y ^C	MQHIEY ^P P ^F T	FGQGTKLEIK	(SEQ ID NO: 258)	
hVB22B e	GVPDRFSGSGGT ^F TLKISR ^V EAE ^D VG ^V Y ^C	MQHIEY ^P P ^F T	FGQGTKLEIK	(SEQ ID NO: 258)	
	FR3	CDR3	FR4		

FIG. 18-2

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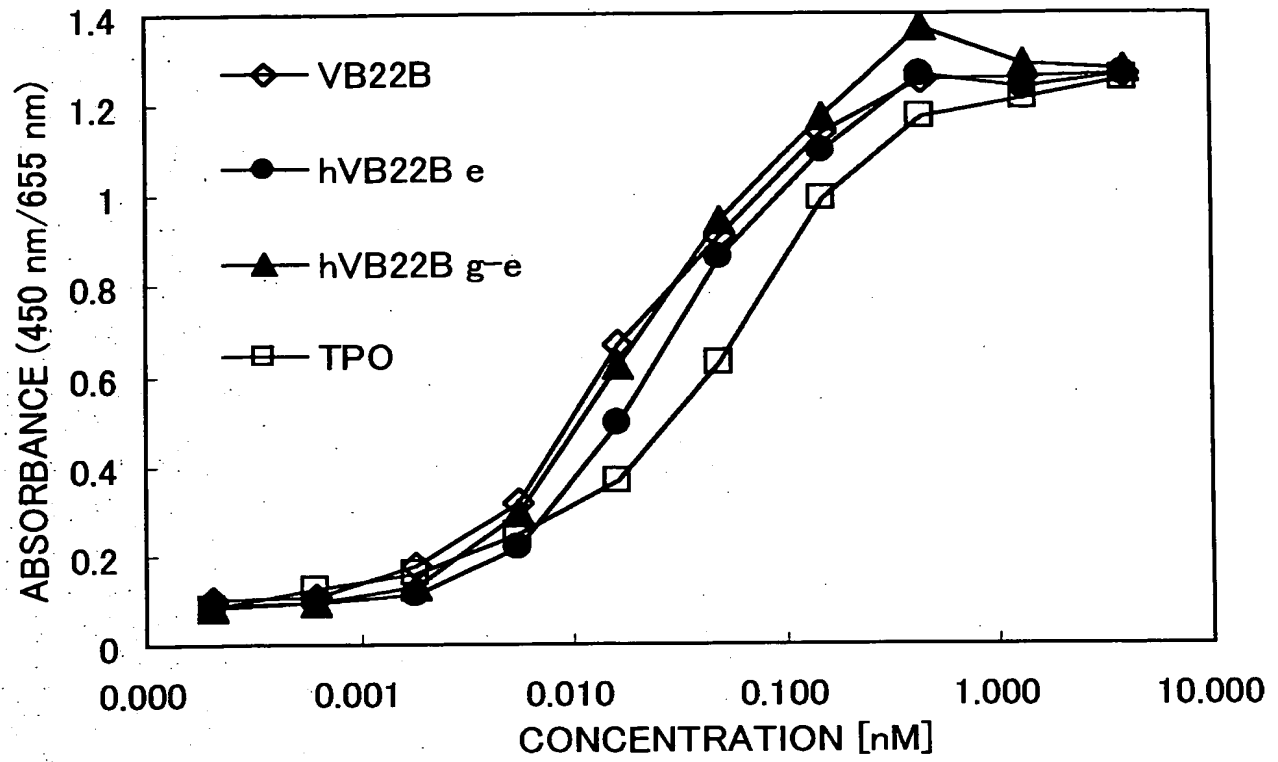


FIG. 19

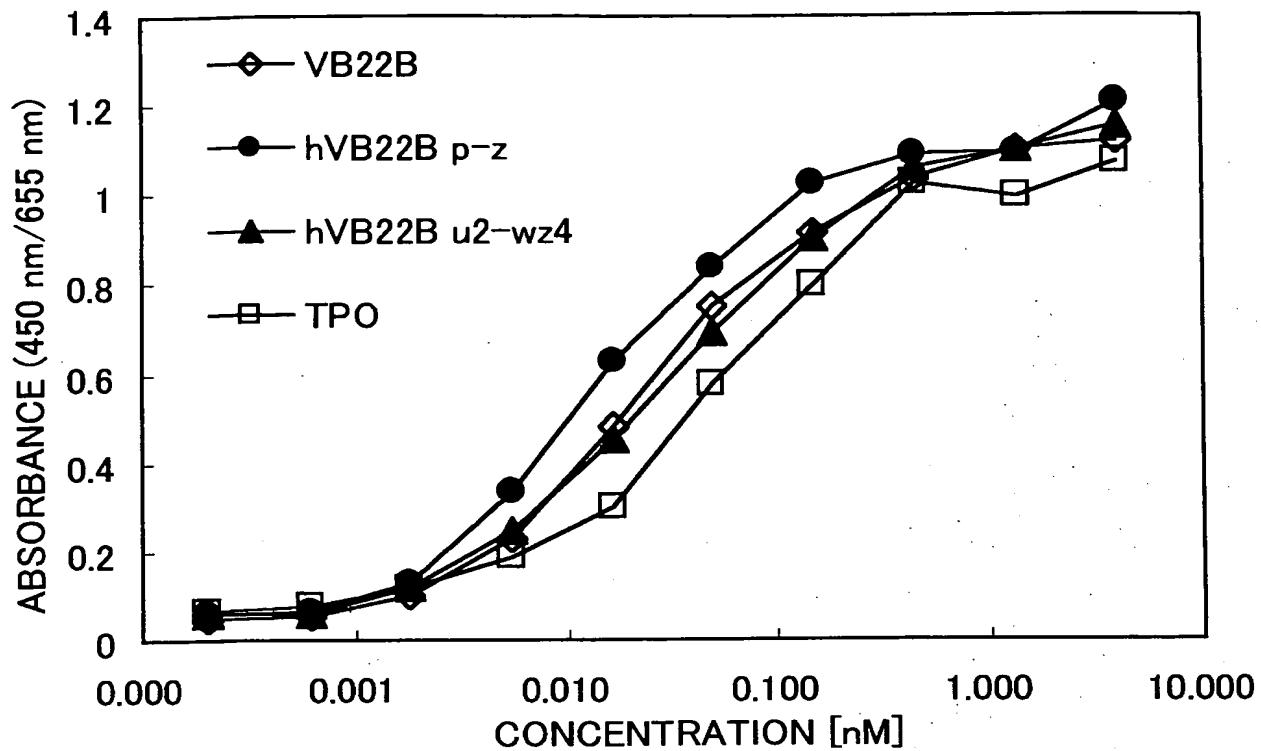


FIG. 20

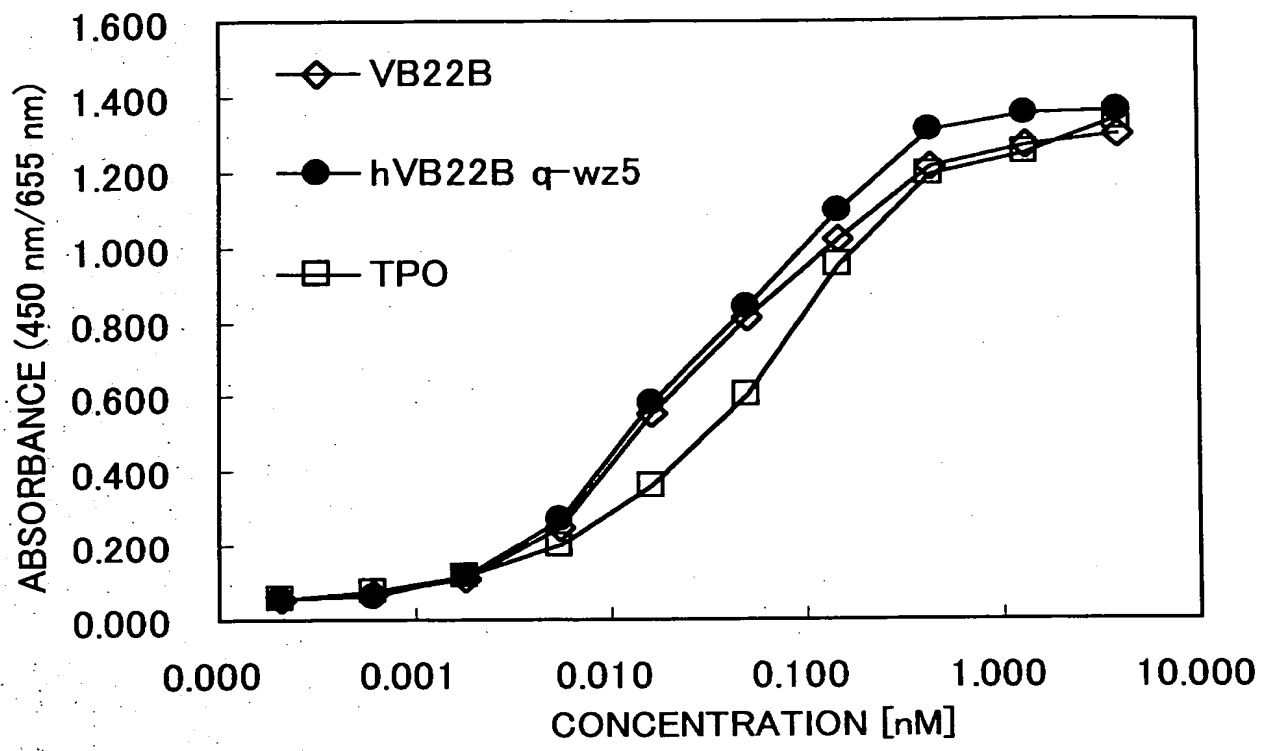


FIG. 21